Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1-2. (Cancelled)

3. (Currently amended) An isolated nucleic acid that encodes an ADNF III polypeptide, wherein said isolated nucleic acid specifically hybridizes, under stringent conditions, to an ADNF III ~~gene~~ nucleic acid ~~having a nucleic acid sequence~~ comprising a nucleic acid sequence complementary to SEQ ID NO:2, SEQ ID NO:56, or SEQ ID NO:58, wherein the stringent hybridization is carried out at 65°C in a buffer comprising 5x SSC and 1% SDS or at 42°C in a buffer comprising 50% formamide, 5x SSC, and 1%SDS; followed by a wash at 65°C in a buffer comprising 0.2x SSC and 0.1% SDS, and wherein the encoded ADNF III polypeptide exhibits neuroprotective action on a neuron and comprises the following ADNF III amino acid sequence:

$(R^1)_x$-Asn-Ala-Pro-Val-Ser-Ile-Pro-Gln-$(R^2)_y$ (SEQ ID NO:10) in which:

R^1 is an amino acid sequence comprising from 1 to about 40 amino acids wherein each amino acid is independently selected from the group consisting of naturally occurring amino acids and amino acid analogs;

R^2 is an amino acid sequence comprising from 1 to about 40 amino acids wherein each amino acid is independently selected from the group consisting of naturally occurring amino acids and amino acid analogs; and

x and y are independently selected and are equal to zero or one.

4. (Previously presented) The isolated nucleic acid in accordance with claim 3, wherein said isolated nucleic acid has a nucleic acid sequence comprising SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:54, SEQ ID NO:56, or SEQ ID NO:58.

5. (Cancelled)

6. (Currently amended) The isolated nucleic acid in accordance with claim 3, wherein said isolated nucleic acid encodes an ADNF III polypeptide comprising SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:6, SEQ ID NO:55, SEQ ID NO:57, or SEQ ID NO:59.

7-55. (Cancelled)

56. (Previously presented) An expression vector that comprises the isolated nucleic acid of claim 3.

57. (Currently amended) [A] An isolated host cell that comprises the expression vector of claim 56.

58. (Previously presented) A method of producing an ADNF III polypeptide, the method comprising the step of culturing the host cell of claim 57 under conditions suitable for expression of the ADNF III polypeptide.

59. (New) The ADNF III nucleic acid of claim 3, wherein the encoded ADNF III polypeptide comprises the ADNF III amino acid sequence wherein:

x and y are both zero (SEQ ID NO:6).

60. (New) The ADNF III nucleic acid of claim 3, wherein the encoded ADNF III polypeptide comprises the ADNF III amino acid sequence wherein:

x is one;

R^1 is Gly-Gly-; and

y is zero (SEQ ID NO:33).

61. (New) The ADNF III nucleic acid of claim 3, wherein the encoded ADNF III polypeptide comprises the ADNF III amino acid sequence wherein:

x is one;

R^1 is Leu-Gly-Gly-;

y is one; and

R^2 is -Gln-Ser (SEQ ID NO:34).

62. (New) The ADNF III nucleic acid of claim 3, wherein the encoded ADNF III polypeptide comprises the ADNF III amino acid sequence wherein:

x is one;

R^1 is Leu-Gly-Leu-Gly-Gly- (SEQ ID NO:17);

y is one; and

R^2 is -Gln-Ser (SEQ ID NO:35).